

The Morning Email: TERM TEDS & Dirty TEDS

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Want something added? Let me know: jgoulding@ghco.com

Disclaimer: All information within this newsletter is meant for internal use at GH Trader's LLC, only. All information has been recorded to the best of my ability. This material is based upon information that I consider reliable, but I do not represent that it is accurate or complete.

Treasury Futures and Cash				
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	108.8500	108.2720	0.781	1.75
ZF	118.3125	118.1000	1.567	1.57
ZN	123.2500	123.0800	1.773	6.14
2y	99.8344	99.2670	0.961	1.92
5y	99.6875	99.2200	1.818	4.71
10y	99.7500	99.2400	2.770	8.68

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAH09	98.670	1.330	25	0.068	MAR	
EDAM09	98.665	1.335	116	0.317	JUN	White Pack
EDAU09	98.605	1.395	207	0.566	SEP	
EDAZ09	98.455	1.545	298	0.816	DEC	
EDAH10	98.350	1.650	389	1.065	MAR	
EDAM10	98.165	1.835	480	1.314	JUN	Red Pack
EDAU10	97.970	2.030	571	1.564	SEP	
EDAZ10	97.755	2.245	662	1.813	DEC	
EDAH11	97.585	2.415	753	2.062	MAR	
EDAM11	97.370	2.630	844	2.312	JUN	Green Pack
EDAU11	97.180	2.820	942	2.580	SEP	
EDAZ11	96.980	3.020	1033	2.829	DEC	
EDAH12	96.875	3.125	1124	3.079	MAR	
EDAM12	96.765	3.235	1215	3.328	JUN	Blue Pack
EDAU12	96.685	3.315	1306	3.577	SEP	
EDAZ12	96.575	3.425	1397	3.827	DEC	
EDAH13	96.555	3.445	1488	4.076	MAR	
EDAM13	96.475	3.525	1579	4.325	JUN	Gold Pack
EDZU13	96.380	3.620	1670	4.575	SEP	
EDZZ13	96.270	3.730	1761	4.824	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.426	-2.313	9859.875	
Red Pack	1.977	-3.875	9806.000	Pack Prices
Green Pack	2.778	-4.125	9727.875	
Blue Pack	3.348	-5.750	9672.500	
Gold Pack		0.000	9646.250	

Red pack is a 2yr proxy
 Gold pack is a 10yr proxy
 Red /Gold is a 2/10 proxy
 Blue pack is a 5yr proxy
 Blue/Gold is a 5/10 proxy

Notes

* Futures use CTD for Last Yield

IF : '#VALUE!', then, no quote being provided by exchange.

If color of cell is orange, it's simply a 'note' for me.

How many ways can you hedge the TED? Let me count...there's lots and lots, like:

- 1 Regression
 - 2 Engineered
 - 3 Strip with and without Stubs
 - 4 Convexity Bias
 - 5 Weighted
 - 6 Unweighted
- and more...

Most of us are interested in the *unweighted hedge* which is simply a curve trade hedge. There are so many ways to hedge the TED trade that I can't possibly list them all.

If you email me and ask for a specific hedge, I'll get it to you.

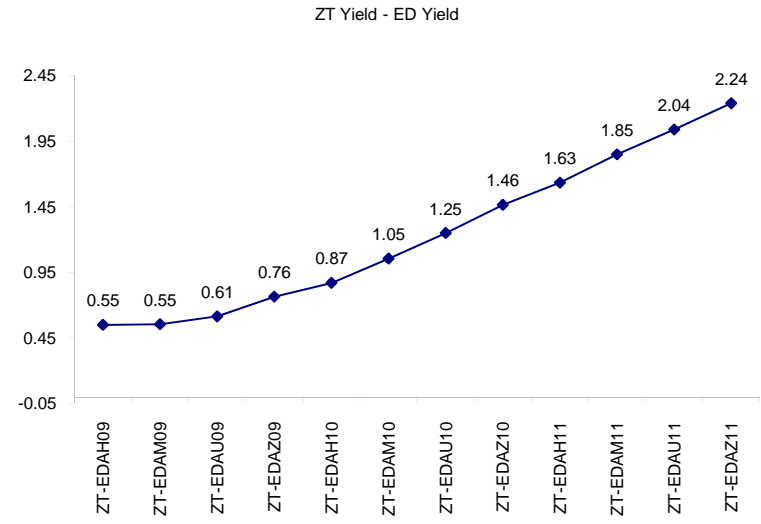
jgoulding@ghco.com

Correlations (Important)

Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based on yield than price.

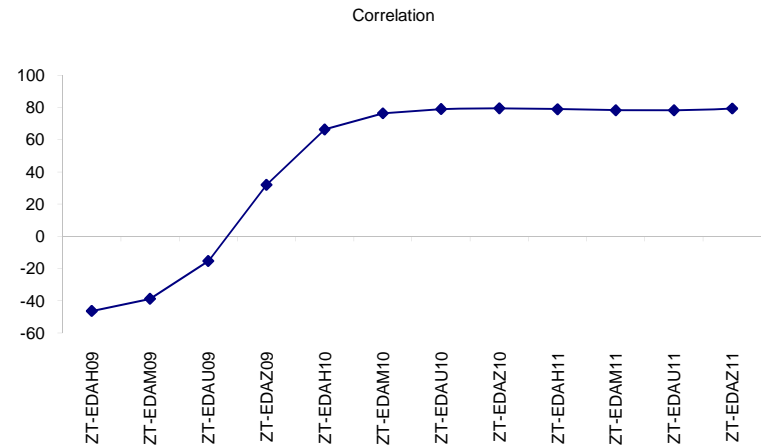
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	10.180	0.55	ZT-EDAH09	-46.355
EDAM09	10.185	0.55	ZT-EDAM09	-38.721
EDAU09	10.245	0.61	ZT-EDAU09	-15.316
EDAZ09	10.395	0.76	ZT-EDAZ09	32.009
EDAH10	10.500	0.87	ZT-EDAH10	66.330
EDAM10	10.685	1.05	ZT-EDAM10	76.346
EDAU10	10.880	1.25	ZT-EDAU10	78.991
EDAZ10	11.095	1.46	ZT-EDAZ10	79.503
EDAH11	11.265	1.63	ZT-EDAH11	78.904
EDAM11	11.480	1.85	ZT-EDAM11	78.261
EDAU11	11.670	2.04	ZT-EDAU11	78.232
EDAZ11	11.870	2.24	ZT-EDAZ11	79.327

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS (Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZT Duration	Spread Duration	
EDAH09	0.068	1.75	1.68	ZT-EDAH09	
EDAM09	0.317	1.75	1.43	ZT-EDAM09	
EDAU09	0.566	1.75	1.18	ZT-EDAU09	
EDAZ09	0.816	1.75	0.93	ZT-EDAZ09	
EDAH10	1.065	1.75	0.68	ZT-EDAH10	
EDAM10	1.314	1.75	0.43	ZT-EDAM10	
EDAU10	1.564	1.75	0.18	ZT-EDAU10	
EDAZ10	1.813	1.75	(0.06)	ZT-EDAZ10	
EDAH11	2.062	1.75	(0.31)	ZT-EDAH11	
EDAM11	2.312	1.75	(0.56)	ZT-EDAM11	
EDAU11	2.580	1.75	(0.83)	ZT-EDAU11	
EDAZ11	2.829	1.75	(1.08)	ZT-EDAZ11	

The farther away from 0 the spread duration is the riskier the trade.

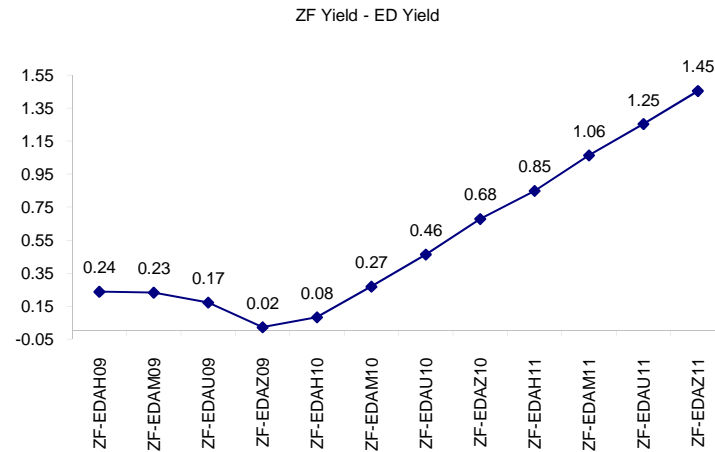


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	19.643	0.24	ZF-EDAH09	-62.543
EDAM09	19.648	0.23	ZF-EDAM09	-53.707
EDAU09	19.708	0.17	ZF-EDAU09	-25.263
EDAZ09	19.858	0.02	ZF-EDAZ09	29.885
EDAH10	19.963	0.08	ZF-EDAH10	71.222
EDAM10	20.148	0.27	ZF-EDAM10	84.610
EDAU10	20.343	0.46	ZF-EDAU10	88.805
EDAZ10	20.558	0.68	ZF-EDAZ10	90.873
EDAH11	20.728	0.85	ZF-EDAH11	91.606
EDAM11	20.943	1.06	ZF-EDAM11	92.106
EDAU11	21.133	1.25	ZF-EDAU11	92.827
EDAZ11	21.333	1.45	ZF-EDAZ11	93.606

Price = Outright Decimal Price - Euro Contract Price

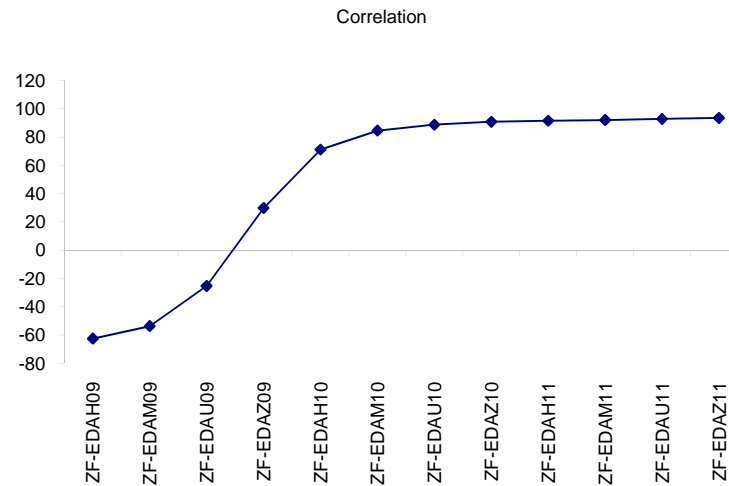
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAH09	0.068	1.57	1.50	ZF-EDAH09		
EDAM09	0.317	1.57	1.25	ZF-EDAM09		
EDAU09	0.566	1.57	1.00	ZF-EDAU09		
EDAZ09	0.816	1.57	0.75	ZF-EDAZ09		
EDAH10	1.065	1.57	0.50	ZF-EDAH10		
EDAM10	1.314	1.57	0.25	ZF-EDAM10		
EDAU10	1.564	1.57	0.00	ZF-EDAU10		
EDAZ10	1.813	1.57	(0.25)	ZF-EDAZ10		
EDAH11	2.062	1.57	(0.50)	ZF-EDAH11		
EDAM11	2.312	1.57	(0.74)	ZF-EDAM11		
EDAU11	2.580	1.57	(1.01)	ZF-EDAU11		
EDAZ11	2.829	1.57	(1.26)	ZF-EDAZ11		

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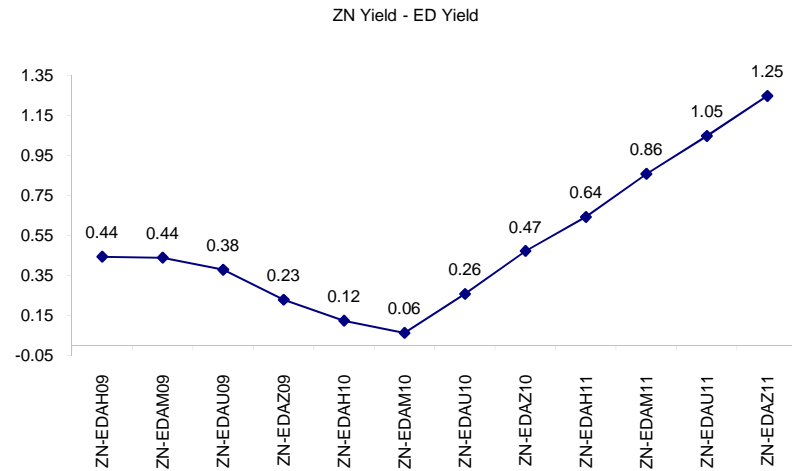


	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAH09	24.580	0.44	ZN-EDAH09	-69.373
EDAM09	24.585	0.44	ZN-EDAM09	-59.868
EDAU09	24.645	0.38	ZN-EDAU09	-28.924
EDAZ09	24.795	0.23	ZN-EDAZ09	29.635
EDAH10	24.900	0.12	ZN-EDAH10	75.023
EDAM10	25.085	0.06	ZN-EDAM10	90.391
EDAU10	25.280	0.26	ZN-EDAU10	95.022
EDAZ10	25.495	0.47	ZN-EDAZ10	96.955
EDAH11	25.665	0.64	ZN-EDAH11	97.565
EDAM11	25.880	0.86	ZN-EDAM11	97.966
EDAU11	26.070	1.05	ZN-EDAU11	98.260
EDAZ11	26.270	1.25	ZN-EDAZ11	98.474

Price = Outright Decimal Price - Euro Contract Price

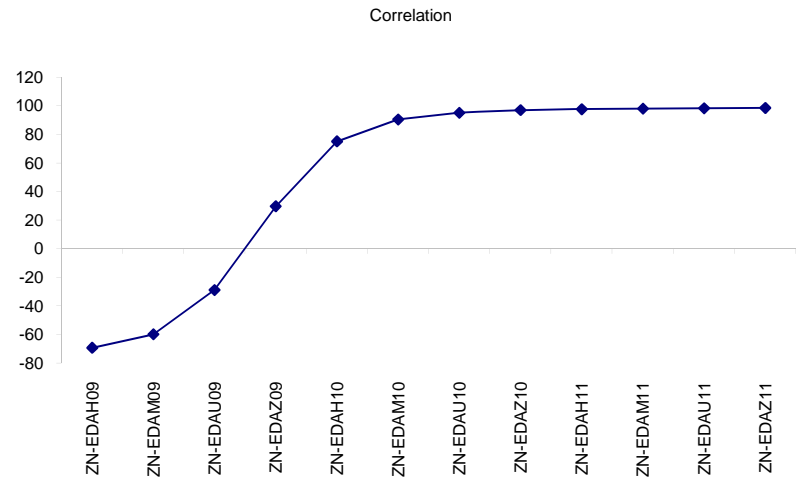
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			ZN Duration	Spread Duration	
	Fraction of year					
EDAH09	0.068	6.14	6.07	ZN-EDAH09		
EDAM09	0.317	6.14	5.82	ZN-EDAM09		
EDAU09	0.566	6.14	5.57	ZN-EDAU09		
EDAZ09	0.816	6.14	5.32	ZN-EDAZ09		
EDAH10	1.065	6.14	5.07	ZN-EDAH10		
EDAM10	1.314	6.14	4.82	ZN-EDAM10		
EDAU10	1.564	6.14	4.57	ZN-EDAU10		
EDAZ10	1.813	6.14	4.32	ZN-EDAZ10		
EDAH11	2.062	6.14	4.08	ZN-EDAH11		
EDAM11	2.312	6.14	3.83	ZN-EDAM11		
EDAU11	2.580	6.14	3.56	ZN-EDAU11		
EDAZ11	2.829	6.14	3.31	ZN-EDAZ11		

The farther away from 0 the spread duration is the riskier the trade.

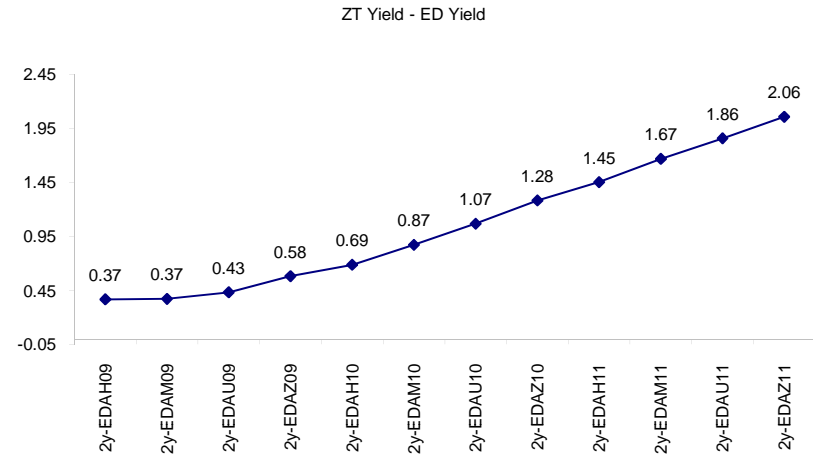


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.164	0.37	2y-EDAH09	47.317
EDAM09	1.169	0.37	2y-EDAM09	40.817
EDAU09	1.229	0.43	2y-EDAU09	15.619
EDAZ09	1.379	0.58	2y-EDAZ09	-34.288
EDAH10	1.484	0.69	2y-EDAH10	-66.602
EDAM10	1.669	0.87	2y-EDAM10	-73.557
EDAU10	1.864	1.07	2y-EDAU10	-75.300
EDAZ10	2.079	1.28	2y-EDAZ10	-76.167
EDAH11	2.249	1.45	2y-EDAH11	-77.150
EDAM11	2.464	1.67	2y-EDAM11	-78.710
EDAU11	2.654	1.86	2y-EDAU11	-80.219
EDAZ11	2.854	2.06	2y-EDAZ11	-82.265

Price = Outright Decimal Price - Euro Contract Price

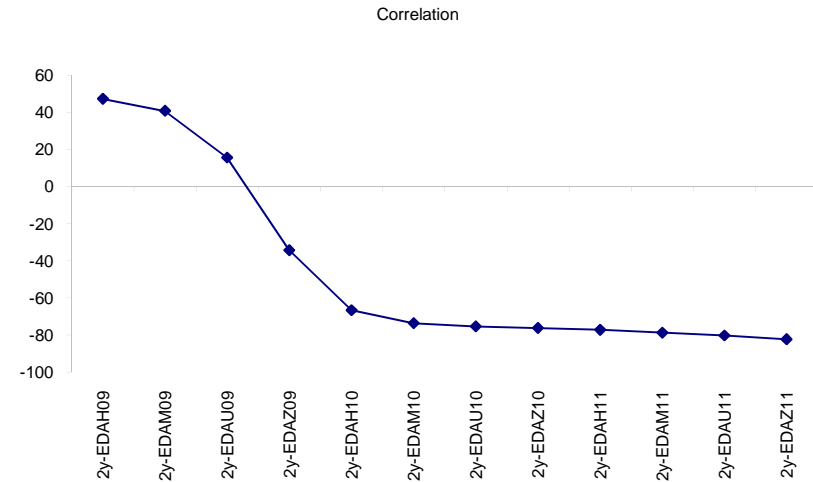
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days.



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAH09	0.068	1.92	1.85	2y-EDAH09	
EDAM09	0.317	1.92	1.61	2y-EDAM09	
EDAU09	0.566	1.92	1.36	2y-EDAU09	
EDAZ09	0.816	1.92	1.11	2y-EDAZ09	
EDAH10	1.065	1.92	0.86	2y-EDAH10	
EDAM10	1.314	1.92	0.61	2y-EDAM10	
EDAU10	1.564	1.92	0.36	2y-EDAU10	
EDAZ10	1.813	1.92	0.11	2y-EDAZ10	
EDAH11	2.062	1.92	(0.14)	2y-EDAH11	
EDAM11	2.312	1.92	(0.39)	2y-EDAM11	
EDAU11	2.580	1.92	(0.66)	2y-EDAU11	
EDAZ11	2.829	1.92	(0.91)	2y-EDAZ11	

The farther away from 0 the spread duration is the riskier the trade.



	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.018	0.49	5y-EDAH09	60.736
EDAM09	1.022	0.48	5y-EDAM09	54.670
EDAU09	1.083	0.42	5y-EDAU09	28.615
EDAZ09	1.233	0.27	5y-EDAZ09	-25.049
EDAH10	1.337	0.17	5y-EDAH10	-64.594
EDAM10	1.522	0.02	5y-EDAM10	-76.179
EDAU10	1.718	0.21	5y-EDAU10	-80.181
EDAZ10	1.933	0.43	5y-EDAZ10	-82.769
EDAH11	2.102	0.60	5y-EDAH11	-84.291
EDAM11	2.318	0.81	5y-EDAM11	-85.835
EDAU11	2.507	1.00	5y-EDAU11	-87.211
EDAZ11	2.708	1.20	5y-EDAZ11	-88.146

Price = Outright Decimal Price - Euro Contract Price

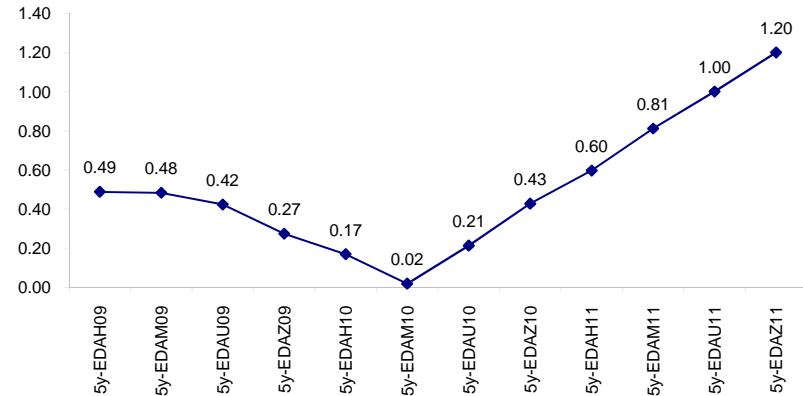
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days

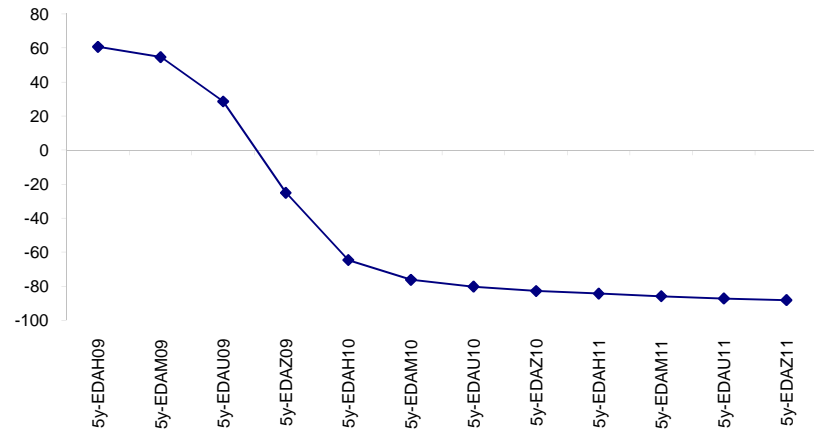
	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAH09	0.068		4.71	4.64	5y-EDAH09
EDAM09	0.317		4.71	4.39	5y-EDAM09
EDAU09	0.566		4.71	4.14	5y-EDAU09
EDAZ09	0.816		4.71	3.90	5y-EDAZ09
EDAH10	1.065		4.71	3.65	5y-EDAH10
EDAM10	1.314		4.71	3.40	5y-EDAM10
EDAU10	1.564		4.71	3.15	5y-EDAU10
EDAZ10	1.813		4.71	2.90	5y-EDAZ10
EDAH11	2.062		4.71	2.65	5y-EDAH11
EDAM11	2.312		4.71	2.40	5y-EDAM11
EDAU11	2.580		4.71	2.13	5y-EDAU11
EDAZ11	2.829		4.71	1.88	5y-EDAZ11

The farther away from 0 the spread duration is the riskier the trade.

5y - ED Yield



Correlation



	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.018	1.44	10y-EDAH09	76.236
EDAM09	1.022	1.43	10y-EDAM09	69.953
EDAU09	1.083	1.37	10y-EDAU09	43.048
EDAZ09	1.233	1.22	10y-EDAZ09	-14.180
EDAH10	1.337	1.12	10y-EDAH10	-61.340
EDAM10	1.522	0.93	10y-EDAM10	-78.102
EDAU10	1.718	0.74	10y-EDAU10	-84.200
EDAZ10	1.933	0.52	10y-EDAZ10	-88.290
EDAH11	2.102	0.35	10y-EDAH11	-90.059
EDAM11	2.318	0.14	10y-EDAM11	-91.467
EDAU11	2.507	0.05	10y-EDAU11	-92.545
EDAZ11	2.708	0.25	10y-EDAZ11	-92.008

Price = Outright Decimal Price - Euro Contract Price

Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days

	ED Duration as Fraction of year			
	10Y Duration	Spread Duration		
EDAH09	0.068	8.68	8.61	10y-EDAH09
EDAM09	0.317	8.68	8.36	10y-EDAM09
EDAU09	0.566	8.68	8.11	10y-EDAU09
EDAZ09	0.816	8.68	7.86	10y-EDAZ09
EDAH10	1.065	8.68	7.61	10y-EDAH10
EDAM10	1.314	8.68	7.36	10y-EDAM10
EDAU10	1.564	8.68	7.11	10y-EDAU10
EDAZ10	1.813	8.68	6.86	10y-EDAZ10
EDAH11	2.062	8.68	6.61	10y-EDAH11
EDAM11	2.312	8.68	6.36	10y-EDAM11
EDAU11	2.580	8.68	6.10	10y-EDAU11
EDAZ11	2.829	8.68	5.85	10y-EDAZ11

The farther away from 0 the spread duration is the riskier the trade.

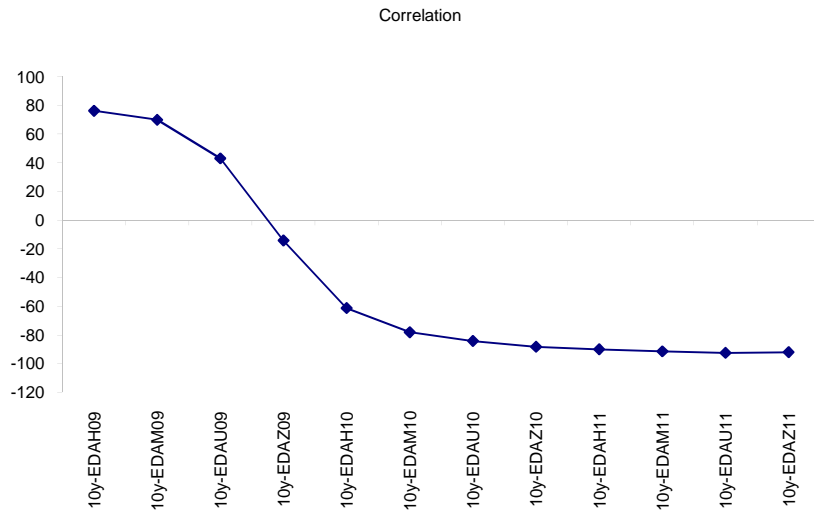
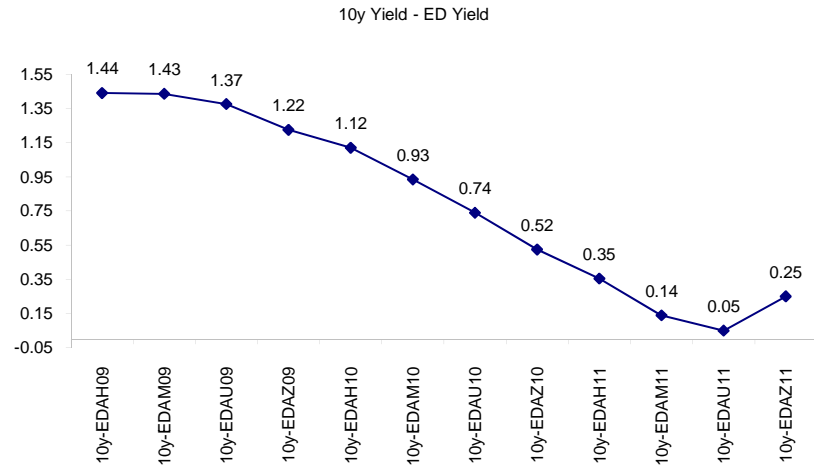


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

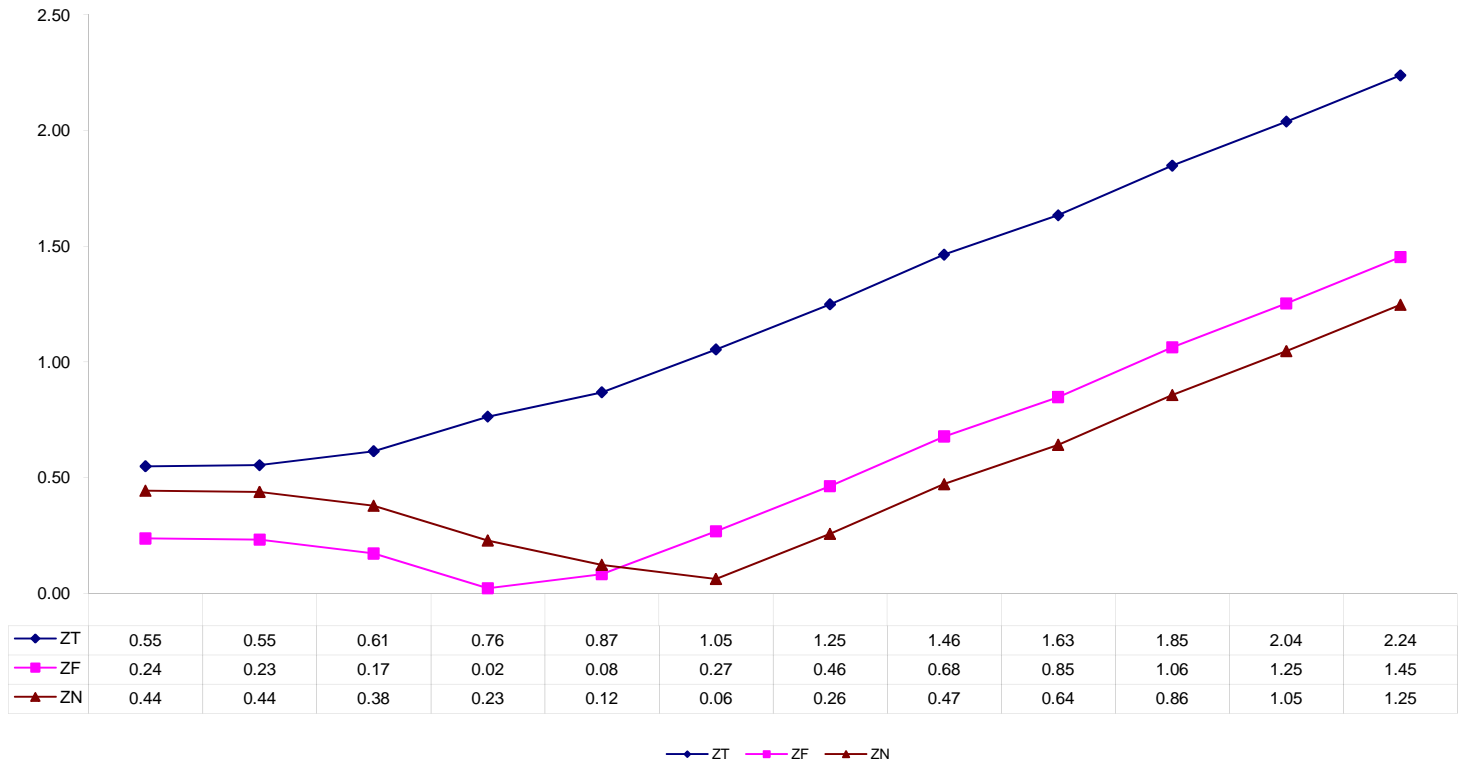
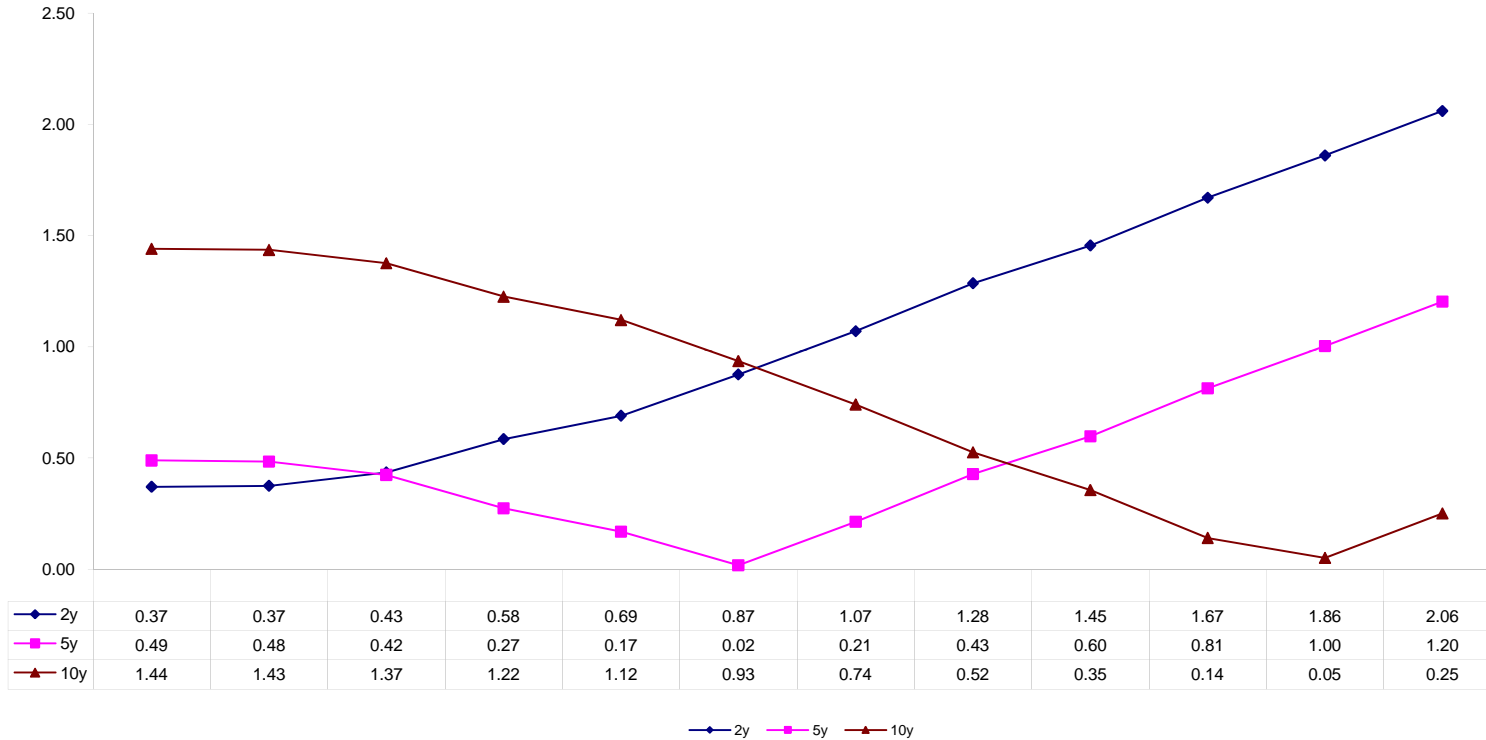
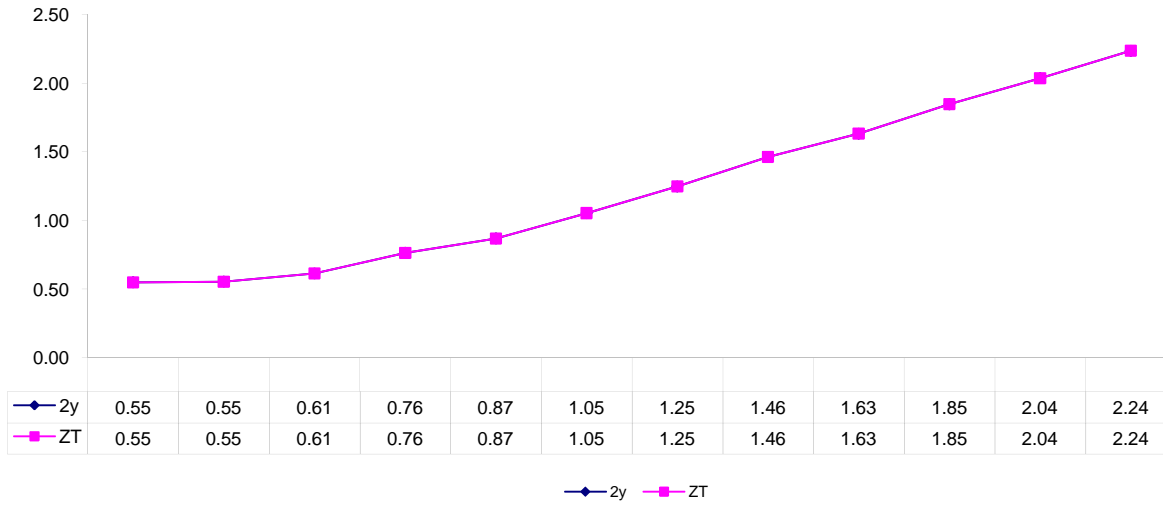
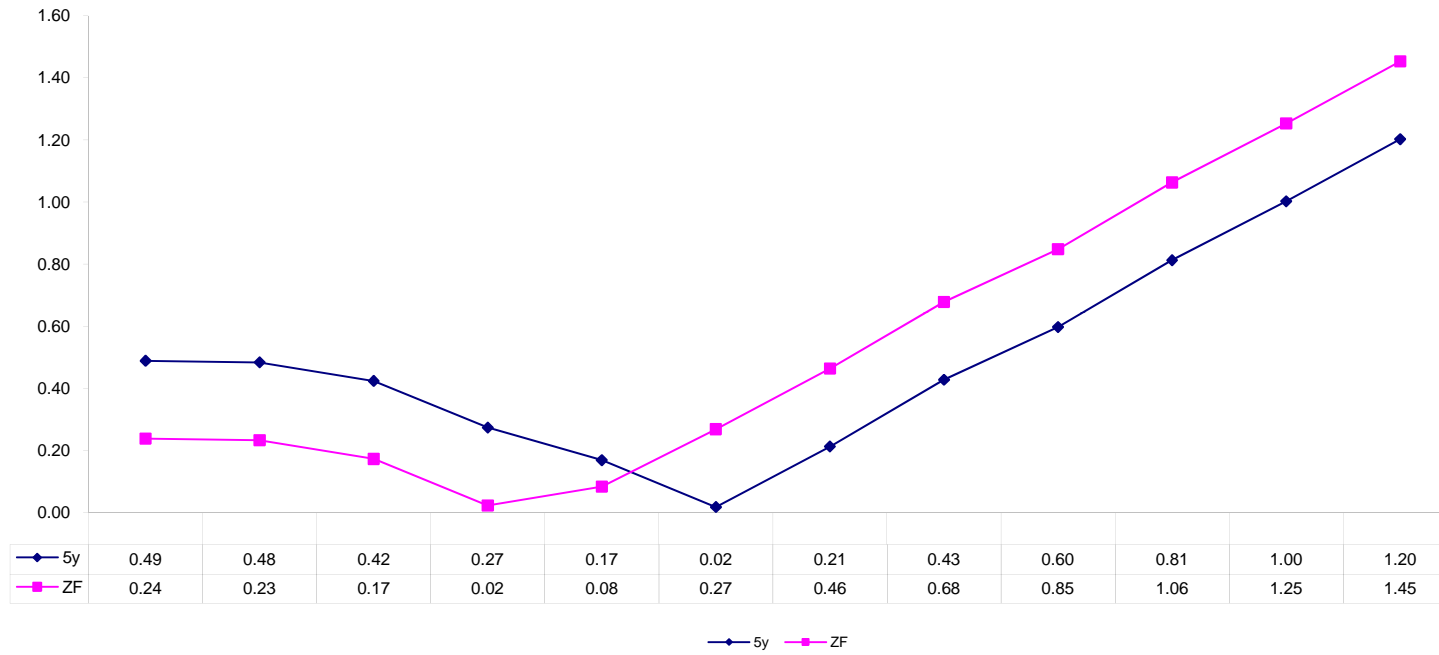


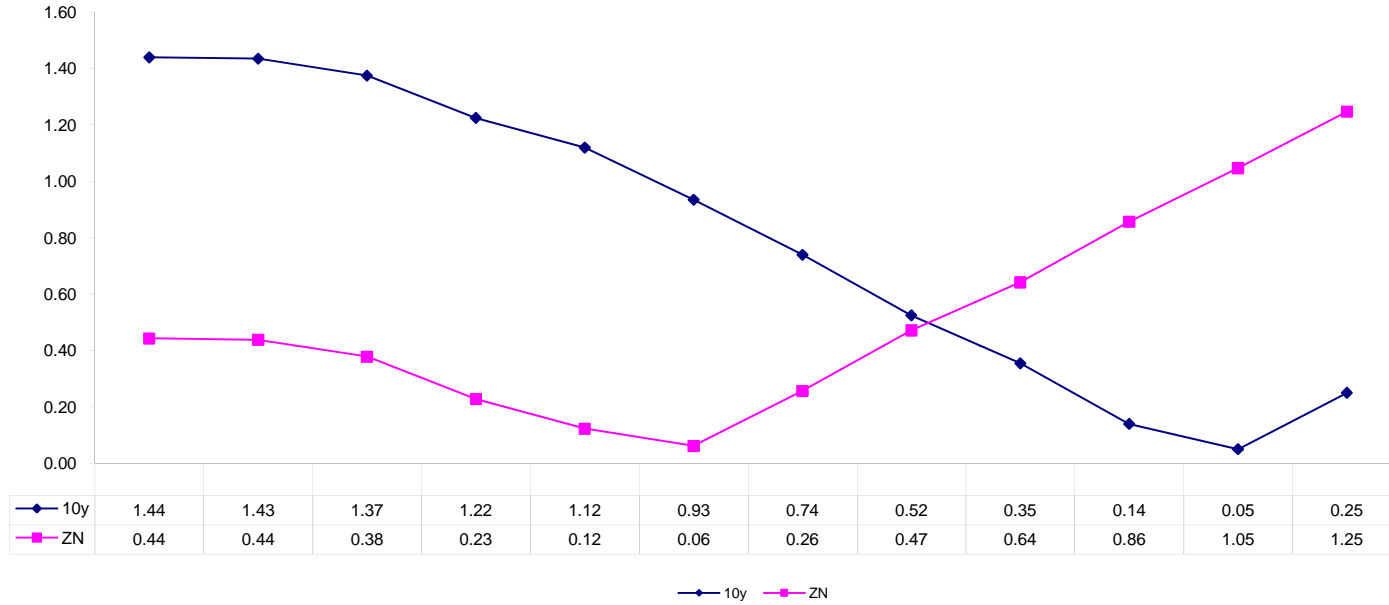
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.426	-2.313	9859.875
Red Pack	1.977	-3.875	9806.000
Green Pack	2.778	-4.125	9727.875
Blue Pack	3.348	-5.750	9672.500
Gold Pack		0.000	9646.250

